

CLAIMS

1. A colored soda-lime glass of blue hue composed of glass-forming main constituents, comprising more than 2% of magnesium oxide and coloring agents, characterized in that it contains more than 1.1 wt% Fe_2O_3 , less than 0.53 wt% FeO and less than 0.13 wt% manganese oxide, has a light transmission (TLA4) of
5 between 15% and 70% and a selectivity (SE4) of greater than 1.2 and has a dominant wavelength (λ_D) and an excitation purity (P) such that they lie in a CIE 1931 chromaticity plot within a triangle whose apices are defined by the point representing the illuminant C source and the points whose coordinates (λ_D , P) are (490,19) and (476,49), respectively.
- 10 2. The colored glass according to claim 1, characterized in that it has a dominant wavelength of less than 489 nm and/or a purity (P) of greater than 12%.
3. The colored glass according to any of claims 1 and 2, characterized in that it has a TUV4 of less than 10%.
- 15 4. The colored glass according to any of claims 1 to 3, characterized in that it has a redox value of less than 41%.
5. The colored glass according to any of claims 1 to 4, characterized in that it comprises, as coloring agents, at least one of the elements Cr, Co, Se, Ce, V, Ti.
- 20 6. The colored glass according to any of claims 1 to 5, characterized in that it has a dominant wavelength (λ_D) and an excitation purity (P) such that they lie in a CIE 1931 chromaticity plot within a triangle whose apices are defined by the point representing the illuminant C source and the points whose coordinates (λ_D , P) are (490,19) and (480,38), respectively.
- 25 7. The colored glass according to any of claims 1 to 6, characterized in that it has a selectivity (SE4) of greater than 1.6.
8. The colored glass according to any of claims 1 to 7, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

| | |
|-------------------------|-------------------|
| Fe_2O_3 | 1.2 to 1.6% |
| FeO | 0.34 to 0.50% |
| Co | 0.0030 to 0.0100% |
| Cr_2O_3 | 0 to 0.0200% |
| V_2O_5 | 0 to 0.0500% |
| Se | 0 to 0.0020% |
| CeO_2 | 0 to 0.5% |
| TiO_2 | 0 to 1.5%. |

9. The colored glass according to claim 8, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

| | |
|-------------------------|-------------------|
| Fe_2O_3 | 1.2 to 1.5% |
| FeO | 0.34 to 0.45% |
| Co | 0.0030 to 0.0100% |
| Cr_2O_3 | 0 to 0.0150% |
| V_2O_5 | 0 to 0.0400%. |

10. The colored glass according to any of claims 8 and 9, characterized in that it has the following optical properties:

$$35\% < \text{TLA4} < 45\%$$

$$20\% < \text{TE4} < 30\%$$

$$\text{TUV4} < 9\%$$

$$\lambda_D > 483 \text{ nm}$$

$$P > 12\%.$$

11. The colored glass according to any of claims 1 to 5, characterized in that it comprises the following percentages by weight of coloring agents, the total amount of iron being expressed in the form of Fe_2O_3 :

| | |
|-------------------------|-------------------|
| Fe_2O_3 | 1.3 to 1.8% |
| FeO | 0.30 to 0.50% |
| Co | 0.0160 to 0.0270% |
| Cr_2O_3 | 0 to 0.0200% |

| | |
|----------|--------------|
| V_2O_5 | 0 to 0.0500% |
| Se | 0 to 0.0040% |
| CeO_2 | 0 to 0.5%. |

12. The colored glass according to claim 11, characterized in that it
5 has the following optical properties:

$$16\% < TLA4 < 24\%$$

$$12\% < TE4 < 18\%$$

$$TUV4 < 5\%$$

$$476 \text{ nm} < \lambda_D < 483 \text{ nm}$$

10 $P > 18\%$.

13. The colored glass according to any of claims 1 to 12,
characterized in that it forms a window for an automobile.